

Remarks

This paper is responsive to the Office Action dated March 10, 2008. Claims 1–21 are now pending.

Rejections under 35 USC § 102(e)

The Patent Office rejects claims 1-13 as purportedly anticipated by Lin et al. (U.S. Patent No. 6,864,554) (hereinafter Lin). Applicants traverse this rejection.

With regard to claims 1-4, the Patent Office asserts that Lin discloses an optoelectronic device with a reflective surface, comprising an LED (21) capable of emitting light, a layer of phosphor (233) positioned to receive light and emitting visible light when illuminated with excitation light, and an interference reflector means (46) for reflecting at least some light emitted by the LED that has not passed through the layer of phosphor material, onto the layer of phosphor material, and transmitting at least some visible light emitted by the phosphor. Applicants respectfully submit that the Patent Office has mischaracterized Lin and therefore the rejection over Lin is inappropriate and should be withdrawn.

Claim 1

Applicants have previously discussed in their appeal brief for this application and previous office action responses the novelty of an interference reflector means (as in claim 1) that performs two functions, for instance, in traversing the rejection over Singer et al. (U.S. Patent No. 5,813,752). The Patent Office found these arguments persuasive in withdrawing the previous rejections. The same shortcomings in Singer are found in Lin. For the sake of clarity, these arguments (as applied to Lin) are provided in further detail below.

The Patent Office has failed to show that Lin anticipates all of the elements of claim 1. The Patent Office cites to col. 8, lines 53-65 and Fig. 5 of Lin, asserting that Lin teaches an interference reflector reflecting some light not yet passed through the phosphor material onto the phosphor and transmitting at least some visible light emitted by the phosphor. The Patent Office has in fact not pointed to any support for this contention in the cited passage from Lin, nor anywhere else in the reference.

First, the Patent Office has not pointed to anything in Lin that teaches, suggests or describes reflective layer 46 as an interference reflector. As defined in the present application, an interference reflector includes any reflector having a plurality of thin layers or other structures that produce constructive or destructive interference of light to influence the reflective properties of the reflector. Lin simply refers to 46 as "a light-reflective layer" that is "coated on the inner wall of the opening 41 to reflect light". Thus, the Patent Office has failed to show where Lin teaches, suggests or describes an interference reflector means as claimed in claim 1.

Second, Applicants have claimed in claim 1 a singular interference reflector means with properties of both reflecting light to phosphor that has not yet passed through the layer of phosphor material, and transmitting visible light emitted by the phosphor. The Patent Office points to col. 8, lines 53-65 of Lin, which notes simply that the reflective coating reflects "light". The Patent Office points to nothing in Lin to suggest that this is an interference reflector means meant to transmit certain wavelengths of light and reflect others. Nor has the Patent Office explained how or why, given the set up and purpose of the device described in Lin, there would be any reason or ability to transmit light *through* element 46. The opposite side of element 46 in Lin is base 23, which is nowhere in Lin indicated to be a light transmitting layer.

Accordingly, Applicants respectfully submit that the rejection of claim 1 is inappropriate and should be withdrawn.

Claim 2

Claim 2 similarly recites "an interference reflector positioned to reflect at least some light emitted by the LED that has not passed through the layer of phosphor material, onto the layer of phosphor material". The Patent Office has failed to point to anything in Lin that teaches, suggests or describes reflective layer 46 as an interference reflector.

Accordingly, Applicants respectfully submit that the rejection of claim 2 is inappropriate and should be withdrawn.

Claims 3–4

With respect to claim 3, the Patent Office failure to show where Lin teaches an interference reflector as recited in claims 1 and 2 overcomes the rejection of claim 3 over Lin.

Further, the Patent Office failure to show where Lin teaches, suggests or describes a singular interference reflector with properties of both reflecting light to phosphor that has not yet passed through the layer of phosphor material, and transmitting visible light emitted by the phosphor overcomes the rejection of claim 3 over Lin as it relates to its dependency upon claim 1.

With respect to claim 4, the Patent Office seems to realize the shortcoming of Lin regarding element 46 and its ability to transmit light, as in the rejection of claim 4 the Patent Office refers to "reflector" 232 as a reflector which substantially transmits light emitted by the layer of phosphor material. The Patent Office here appears to assert that one reflector, 46, reflects light to the phosphor, while another, 232, selectively transmits light.

Even if Lin taught that reflectors 46 and 232 were both interference reflectors (which Applicants kindly submit that the Patent Office has not demonstrated), such a multiple reflector device does not anticipate Applicants' claimed invention. The reflector of claim 4 is *the* reflector of claim 2, indicating that a singular reflector fulfills the two functions as claimed. The Patent Office has not shown how Lin teaches, suggests or describes such an interference reflector.

Accordingly, the rejection of claims 3 and 4 over Lin is inappropriate and should be withdrawn.

Claims 5-13

Claims 5-13 are patentable over Lin for at least the same reasons discussed above with respect to independent claim 2 from which each ultimately depends.

In accordance with the preceding discussion, Applicants kindly submit that this rejection is inappropriate and respectfully request that it be withdrawn.

Rejections under 35 USC § 103(a)

The Patent Office rejects claims 14-15 as purportedly unpatentable over Lin et al. Applicants traverse this rejection. The Patent Office further rejects claims 16-21 as purportedly unpatentable over Lin et al. in view of Johnson et al. (U.S. Patent No. 6,414,442). Applicants also traverse this rejection

Each of claims 14–21 ultimately depends upon independent claim 2. As discussed above, the Patent Office has failed to show how Lin teaches, suggests or describes all of the elements in independent claim 2. For at least this reason, the rejection of claims 14–15 is inappropriate and should be withdrawn. The Patent Office has not shown how the inclusion of Johnson overcomes the shortcomings of Lin with regard to independent claim 2. Therefore, for at least the reasons discussed above relating to independent claim 2, the rejection of claims 16–21 is inappropriate and should be withdrawn.

Further, with regard to claim 20, the Patent Office asserts that "Lin et al. disclose the reflective layer 46 is epoxy resin coating (col. 8, lines 53–65). Although, it is not a two layers of thermoplastic polymer, however, the epoxy resin coating can function in the same manner, or be used in the same manner."

There is simply no support in the cited passage for such an assertion. It is kindly requested of the Patent Office that some particular passage from Lin be identified here to support this assertion that Lin makes this teaching. Column 8, lines 53–65 do not even use the words epoxy resin coating. It is wholly unclear to Applicants what the basis of this assertion is on the part of the Patent Office. Clarification is requested on this point.

Applicants therefore kindly request that the rejection of claims 14–21 be withdrawn.

Conclusion

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. If it would help to further prosecution of this application, the Patent Office is invited to telephone the below-signed attorney to discuss this application.

Respectfully submitted,

June 5, 2008

Date

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